

An hour of uncompressed 720p digital television programming occupies approximately 222 gigabytes. ($1024 * 720 \text{ pixels} * 3 \text{ bytes/pixel} * 30 \text{ frames/s} * 60 \text{ s/minute} * 60 \text{ minutes/hour} = 238878720000 \text{ bytes.}$) If someone wanted to store this single, uncompressed movie onto a hard drive, they would be advised to purchase three 180 gigabyte hard drives, an expense of approximately FIVE HUNDRED SEVENTY DOLLARS.

Due to buffering issues, storing the movie would be a necessary first step to burning it onto DVD-R media. The raw digital content would consume approximately ten DVD-R, an expense of approximately TWENTY FIVE DOLLARS.

Most pirated movies are distributed on the Internet using the DivX compressor at a setting which produces picture and sound quality inferior to commercial DVDs. Providing higher quality source material is not going to change this. DVDs are typically released before a movie is shown on television, making it even less likely that digital television transmission will be used for piracy.

Digital television copyright protection seems not designed to reduce piracy, but to destroy the nascent personal video recorder (PVR) market. With digital television copy protection, time shifting digital television will become impossible without violating the DMCA. That we are talking about DIGITAL television is almost irrelevant: broadcasters want to preserve their existing, advertising-supported business models, and the transition to digital broadcasting represents an opportunity to write this business model into law. Representatives of the television industry have already equated fast forwarding through commercials with theft.

In our home, Tivo (a personal video recorder) is one of the two most useful piece of consumer electronics ever invented. (Wireless networking is the other.) As a citizen, I believe that broadcast (and cable) television should remain time shiftable.

Regards,
Edwin H. Watkeys III